Environmental Quality Incentives Program
Lower South Platte River Watershed
Non-Point Source Reduction -Water Quantity/Quality Ranking Criteria
FY-2003

1A. System Efficiency

Irrigation Water – Improvement in efficiency for the irrigation system on the offered acres. Points are to be calculated by using the formula [(% of acreage offered) times (% efficiency CHANGE on those acres) times 100] then adding all values. See the example for guidance.

SYSTEM TYPE	PSI REQ	SYS EFF
Impact nozzling overhead/end gun	60+	68%
180 degree spray overhead	30	65%
360 degree LDN truss level	20-30	80%
Rotator wobbler type	30-45	80%
1 ft. below trusses	30-45	80%
Extended drops LDN or LEPA	15-25	90%
Flood (border, contour ditch, corrugations, furrow) or Earthen Ditch		50%
Gated Pipe		55%
Ditch Lining or Pipeline		55%
Surge Valve		60%
Drip Irrigation		95%

EXAMPLE - A producer has 100 acres of irrigated ground to be offered, 50 acres in Field-A and 50 acres in Field B. The producer will convert Field-A from flood to surge. This will result in a 10% change in system efficiency. The producer will convert Field-B from a surge valve system to a drip system. This will result in a 35% change in system efficiency. The points for this would be computed:

Field-A - 0.50 X 0.10 X 100 = 5
Field-B - 0.50 X 0.35 X 100 = 17.5
Total Points = 5 + 17.5 = 22.5

% improvement x 100 = _____pts.
Maximum 45 pts.

2. Irrigation Water Management

Must include at least one of the following:

a.) Well testing
b.) Use of Gypsum Blocks, ET, or Other Recommended Scheduling Tools
c.) Record Keeping

Each practice is worth 5 points **Maximum 10 points.** _____pts.

3. Contracted irrigated acreage of <u>new</u> Ridge Till, No-Till, Mulch-Till or Strip-Till _____ pts.
Must meet 329A, 329B or 329C criteria to manage moisture (by field). 10 pts.
Maximum 10 points.

4. Contracted irrigated acreage of <u>new</u> conservation buffers to protect water quality
Alley cropping, Contour buffer strips, Field border, Filter strip, Grassed waterway, Vegetative barriers 10 pts. _____pts.
Maximum 10 points.

5. Contracted acres of New Nutrient Management
Must meet practice standard 590 10 pts. _____pts.
Maximum 10 points.

6. Contracted acres of streambank erosion
Must meet practice standard 580 10 pts. _____pts.

Maximum 10 points.

7. Abandoned Well Decommisioning (Plugging) **Maximum 10 pts.** 10 pts. _____pts.
Must meet practice standard 351

8. Consumptive Use of Crops Grown

CROP	POINTS
Alfalfa	1
Pasture Grass/Sugar Beets/Potatoes/Onions	2
Corn Grain	3
Sorghum Grain & Corn Silage	4
Beans, dry & Small Vegetables	5
Wheat & other Small Grains (also Melons)	6

Points will be given for the next 3 years of crops to be grown.

YEAR	2004	2005	2006	TOTAL POINTS
CROP				
POINTS				

Maximum 18 pts.

Example: 100 acre tract with two fields. In 2004, 10 acres will be in Corn Grain and 90 acres will be in Corn Silage. In 2005, 100 acres will be in Beans. In 2006, 100 acres will be in Wheat.
For 2004, [(0.10 X 3) + (0.90 X 4) = 3.9pts. For 2005, Beans = 5 pts., and for 2006, Wheat = 6 pts. Total of 14.9 pts.

(EXAMPLE)

YEAR	2004	2005	2006	TOTAL POINTS
CROP	Corn	Beans	Wheat	
POINTS	(3.9)	(5)	(6)	(14.9)

Total Water Quantity/ Quality Ranking Points _____

Tie Breaking Criteria will be the highest points scored in Item 4 and then in Item 1.

Conservationist _____ Date _____

Applicant _____ Date _____

Ranking Criteria FY –03 EQIP
Lower South Platte River Watershed
Reduction In Soil Erosion

Note: Points can only be awarded if practices will be implemented to address the concern.

1) Permanent vegetative cover - The percent of the cropland acreage in the offered tract(s) to be converted to:

1A) adapted **native** (550) perennial species

a. < 1%	0 pts.
b. 1-15%	15 pts.
c. 15-30%	30 pts.
d. 30-60%	45 pts.
e. > 60%	60 pts.
	Points _____

1B) adapted **introduced** (512) perennial species:

a. < 1%	0 pts.
b. 1-15%	5 pts.
c. 15-30%	9 pts.
d. 30-60%	15 pts.
e. > 60%	20 pts
	Points _____

Maximum 60 points **(1A + 1B) Points _____**

Note: Points cannot be given for Permanent Vegetative Cover (1A & 1B) and Soil Quality (2) on the same acreage.

2.) **Soil Quality**. A change in the tillage system results in crops being no-tilled/ minimum tilled in the rotation:

a.	for every no-till perennial broadleaf crop	14 pts.
b.	for every no-till grass used for hay (part of rotation)	13 pts.
c.	for every no-till summer annual broadleaf crop	12 pts.
d.	for every no-till summer annual grass crop	10 pts.
e.	for every no-till winter annual broadleaf crop	8 pts.
f.	for every no-till winter annual grass crop	6 pts.
g.	for every minimum tillage perennial broadleaf crop	12 pts.
h.	for every minimum tillage grass used for hay (part of rotation)	11 pts.
i.	for every minimum tillage summer annual broadleaf crop	10 pts.
j.	for every minimum tillage summer annual grass crop	8 pts.
k.	for every minimum tillage winter annual broadleaf crop	6 pts.
l.	for every minimum tillage winter annual grass crop	4 pts.

Examples:

Summer annual broadleaf crops: sunflower, drybeans, soybeans, sugar beets
Summer annual grass crops: corn, millet, sorghum
Winter annual broadleaf crops: canola
Winter annual grass crops: wheat, barley
Perennial broadleaf crop: alfalfa
Perennial grass: orchardgrass, meadow brome

Maximum 38 Points **Points _____**

3. **Soil Erodibility**. Based on the predominant soil type -33% or more of offered land unit (dominant soil in complexes). Use the data from the soil tables (distributed December 6, 2002 for each soil survey) for the following factors:

Predominant soil _____ I= ____T= ____RV= ____ Hyd. Grp.= ____

A. the **Hydrologic Grouping** (Runoff Potential) of the soil is:

a. Low (A)	4 pts.
b. Moderately low (B)	8 pts.
c. Moderately high (C)	12 pts.
d. High (D)	15 pts.

Points _____

B. the **Representative Slope (RV)** is:

a. 0 - 2%	4 pts.
b. 2 - 4%	8 pts.
c. 4 - 6%	12 pts.
d. > 6%	15 pts.

Points _____

C. the **Erosion Factors** I divided by T (I / T) [Example I = 48, T = 5 (48/5= 9.6)] is:

a. < 12	15 pts.
b. 13 – 18	30 pts.
c. 18 – 30	45 pts.
d. > 30	60 pts.

Points _____

4. **Reduced gully and ephemeral gully erosion**. The amount of land in the offered land unit is adversely affected by ephemeral gully and/or gully erosion:

A. High = > 50% of land area affected	20 pts.
B. Medium = 25 – 50% of land area affected	15 pts.
C. Low = < 25% of land area affected	10 pts.
D. None = none of land area affected	0 pts.

Points _____

5. **New windbreak** to protect farmstead/ livestock or field
Must meet practice code 380 (Maximum 12 pts)

Single row or twin-row high density	8 pts.
Multiple row	12 pts.

Maximum 12 points **Points** _____

Total Soil Erosion Points: _____

Tie Breaking Criteria will be the highest points scored in 3C, then in 3B, then in 3A.

Conservationist _____ Date _____

Applicant _____ Date _____

Ranking Criteria FY-03 EQIP
Lower South. Platte River Watershed
Grazingland/Grassland

1.) TARGETING OF GRASSLAND RESOURCE CONCERNS:

Mark (X) on each of the grassland resource concerns present that will be **directly addressed as a result of the land treatment practices planned**. **No points will be awarded unless a planned practice will directly address the resource concern.** Written justification and designation of the affected area(s) on a photo or map are required.

	Concern is present	List Planned practice(s)	DESCRIPTION OF TARGETED RESOURCE CONCERNS
a.			Wind-scour, blowouts and/or deposition areas greater than 3 percent of offered acres
b.			Gullies caused by concentrated flow or livestock trailing that are actively eroding
c.			Water distribution in pasture is greater than ½ mile apart
d.			Degraded vegetative cover that has low production potential and low feed quality for livestock and/or wildlife
e.			Excessive overland runoff of precipitation due to type or condition of vegetative cover
f.			Noxious weed infestations greater than 3 percent of offered acres
g.			Water distribution limits the utilization of a pasture at the present time
h.			Lack of protection for livestock by windbreaks.

(10 pts) for each resource concern that will be directly addressed as a result of the land treatment practices planned.

1.) Targeted resource concern points:_____

2.) SELECT ONE GRAZING MANAGEMENT SYSTEM OR STRATEGY:

a.	Prescribed grazing system where a rotational grazing system meeting NRCS FOTG criteria will be newly implemented to address documented grassland resource concerns	(55 pts)
b.	Prescribed grazing system where a rotational grazing system meeting NRCS FOTG criteria is currently used, but additional improvements to the system will be implemented to address documented grassland resource concerns	(40 pts)
c.	Season-long grazing strategy is utilized, but new practices will improve grazing distribution and address documented grassland resource concerns	(25 pts)
d.	Season-long grazing strategy where existing practices need to be replaced at their current location to maintain use of the grazing land	(10 pts)

2.) Grazing management incentive points:_____

Total Grassland Ranking points:_____

TIE BREAKING CRITERIA WILL BE THE HIGHEST POINTS SCORED IN ITEM 2.

Conservationist _____ Date _____

Applicant _____ Date _____

Clarification and guidelines on 1.) Targeting of grassland resource concerns

a. Identify location of wind-scour, blowout and/or depositional area(s) on aerial photo. Multiple areas can be combined to meet the minimum size criteria as long as they are in the same grazing unit receiving land treatment.

b. Identify location of gully erosion on aerial photo. Affected areas need to be significant problems with a high potential for continued degradation. Example: a gully started by a cow trail that is 100 feet long and 2 feet deep.

c. Document a grazing unit where water sources are currently more than ½ mile apart. This should be rangeland, pastureland or cropland that has been seeded to range or pasture. The grazing unit must be part of a prescribed grazing plan.

d. Seeding or interseeding would likely be necessary to improve the quantity and quality of vegetation. Grazing management alone would not bring about the desired vegetation.

e. Vegetation is short due to species composition or grazing management. Runoff rate is rapid and infiltration is limited due to low stature and density of vegetation. Drought conditions exist as a result of high runoff and low water infiltration. Applies to heavier textured soils.

f. Identify location of noxious weed infestation(s) on aerial photo. Multiple areas can be combined to meet the minimum size criteria as long as they are in the same grazing unit receiving land treatment.

g. Document a grazing unit where no water sources are currently available. This may be a field that was previously enrolled in a reserve program or a cropland field that has been seeded to range or pasture. The grazing unit must be part of a prescribed grazing plan.

h. Identify the need for windbreaks that will protect livestock.

Ranking Criteria FY-03 EQIP
Lower South Platte River Watershed
Non-Point Source Reduction - Livestock Waste

1.) Location of Existing Facility:

1A. 100 year Flood plain (yes = 10 pts.) _____pts.

1B. Depth to groundwater
100/depth in ft. _____pts.

1C. Distance to Surface Water
1000/distance in ft. _____pts.

2.) Plan Components

	Adequate 0.0 pts.	exists Inadequate 5 pts.	non-existent 10 pts.
Collection and Transport	_____	_____	_____
Storage or Treatment	_____	_____	_____
Seepage Control	_____	_____	_____
Transfer and Utilization	_____	_____	_____

TOTAL LIVESTOCK Waste Pts._____

Tie Breaking Criteria will be highest points scored in Item 1, then Item 2.

Conservationist _____ Date _____

Applicant _____ Date _____

Lower South Platte Watershed
FY 2003 EQIP Wildlife Ranking Criteria

Projects must have: 1) wildlife habitat improvement as the primary intent for use of funds and 2) fully described habitat management practices in the conservation plan.

1) The proposed contract addresses:

a.	**Shortgrass prairie habitat**	**25 points _____**
b.	**Wetlands**	**10 points _____**
c.	**Midgrass prairie habitat**	**15 points _____**
d.	**Riparian**	**17 points _____**
e.	**Cropland Interface**	**30 points _____**

(Habitats may be combined for points) **Total _____**

2) Practices planned address limiting factors for target species. Species specific practices found in Biology Technical Notes #10-20 are worth 10 points. If the project is applying practices not listed in the Biology Tech Notes, the local Work Group may assign a point value in concurrence with the NRCS Area Biologist or other designated Area representative. Maximum of 10 points.

Points_____

3) Is the project adjacent to a specific habitat enhancement, maintenance, or restoration effort? (i.e. several adjoining landowners all are installing wildlife habitat practices under wildlife habitat programs. Examples include one of the following: CRP (wildlife planting), PHIP, RMEF, DU, Partners for Wildlife, and other programs as approved by NRCS Area Biologist or Area Representative.)

Yes = 10 points _____
No = 0 points _____

4) Three points for each partner contributing dollars towards the participant's cost. No more than 12 points (4 different partners) maximum for this factor. Participant, landowner, and NRCS are not counted as partners.

Points _____

5) Grazing Management:
High density, short duration **1 point/ pasture _____**

7) Tillage:

No till	**10 points _____**
Minimum till	**5 points _____**
Conventional till	**0 points _____**

Tie Breaking Criteria will be the highest points scored in item 1, then item 2, then item 3, then item 5.

TOTAL POINTS _____

Conservationist _____ Date _____

Applicant _____ Date _____

Ground and Surface Water Conservation Program
FY 2003
Ranking Criteria

Note: Contracted acres must have been irrigated for 3 out of the last 5 years to be eligible.

1. Declining Aquifer _____pts.

Points for increasing the water savings potential via irrigation system improvement on the offered acres shall be calculated as the sum of the before and after index changes for all fields, using the following formula:

[(fraction of acreage offered) x (Index After – Index Before)]. See the example below.

IRRIGATION SYSTEM TYPE		INDEX #
Surface Irrigation Systems	Wild Flooding	**40**
	Furrow w/ siphon tubes	**50**
	Furrow w/ gated pipe	**60**
	Furrow w/ gated pipe & surge	**65**
Sprinkler Irrigation Systems[1]	Center pivot high pressure impact nozzles, > 50 psi	**75**
	Center Pivot low pressure impact nozzles, 30 – 45 psi	**80**
	Center Pivot low pressure, drops ~ 1 ft below trusses, 30 – 45 psi	**85**
	Center Pivot extended drops, MESA[2] & LESA[3] , 15 – 30 psi *(on 2% or flatter slopes only)*	**85**
	LEPA[4] *(on 1% or flatter slopes only)*	**90**
Micro Irrigation	Subsurface Drip (SDI), lateral spacing ≤ 5-7 ft	**90**
Conversion to Non Irrigated	Well rendered unusable	**100**
	Convert pivot corners to non-irrigated land use	**100**

Foot notes. [1] Use the same index # for wiper or linear move systems. **Reduce** the sprinkler index value by 10 points for systems with an end gun. [2] MESA - Mid Elevation Sprinkler Application, may or may not be in canopy. [3] LESA - Low Elevation Sprinkler Application, or LPIC, Low Pressure In Canopy, drops are 1-2 feet above ground. [4] LEPA - Low Energy Precision Application, include planting in circular rows and utilizing some type of reservoir tillage method (e.g. - furrow dikes).

Example. A producer has 100 acres of irrigated ground to be offered, 10 acres in Field A and 90 acres in Field B. The producer will convert Field A from a high pressure center pivot system (index # 75) to non-irrigated land (index # 100). The producer will convert Field-B from a furrow irrigation system with gated pipe (index # 60) to a subsurface drip system (index # 90). The points for this would be computed as :

Field A - (10/100) x (100 – 75) = 2.5
Field B - (90/100) x (90 – 60) = 27.0 **Total Points** = 2.5 + 27.0 = 29.5

2. Irrigation Water Management Improvements (IWM) _____pts.

Each proposal must include at least two of the actions from the list below. Each action is worth 5 points, sum the points for all proposed actions for the total score.

a. Well testing, addition or calibration of a flow measurement device, and pumping plant adjustment or reworking (if needed to accommodate irrigation system changes).
b. Scheduling irrigations using knowledge of crop water requirements, available soil water holding capacity, soil moisture at time of irrigation, and other scheduling tools.
c. Record keeping.
d. Other improvements in irrigation system management as documented with FIRS.

3. Residue/Grazing Management _____pts.

Use of residue management (Ridge Till, Mulch Till, No Till, or Strip Till) for moisture conservation on Contracted irrigated acreage (**10 points**), or on contracted acres converted to non irrigated crop use (**15 points**). 50% residue cover is required year round to meet 329A (No-till/ Strip till) and 329B (Mulch till). 329C (Ridge till) must maintain residue following harvest until planting with no additional disturbance. Use of Prescribed Grazing (528A) on land converted to non irrigated perennial vegetative cover (**5 points**).

4. Consumptive Use of Crops Grown (Maximum points 20 total)

CROP	POINTS
Alfalfa	1
Pasture Grass/Sugar Beets/Potatoes/Onions	2
Corn Grain	3
Sorghum Grain & Corn Silage	4
Beans, dry and Small Vegetable	5
Wheat & other Small Grains(also Melons)	6
Native grass (following conversion to non-irrigated acres)	9

Points will be given for the next 3 years of crops to be grown.

YEAR	2003	2004	2005	TOTAL POINTS
CROP				
POINTS				

Example: 100 acre tract with two fields. In 2004, 10 acres will be in Corn Grain and 90 acres will be in Corn Silage. In 2005, 100 acres will be in Beans. In 2006, 100 acres will be in Wheat.
For 2004, [(0.10 X 3) + (0.90 X 4) = 3.9 pts. For 2005, Beans = 5 pts., and for 2006, Wheat = 6 pts. Total of 14.9 pts.

YEAR	2003	2004	2005	TOTAL POINTS
CROP	Corn	Beans	Wheat	
POINTS	3.9	5	6	**14.9**

TOTAL POINTS (SECTIONS 1 – 4) FOR THIS PROPOSAL: _____

A minimum of 30 points must be achieved to be eligible for funding consideration.
In the case of a tie, compare the points given for ranking criteria number 1, the highest value wins. If still tied, then compare ranking criteria number 2, then number 3 and so on until tie is broken.

Signatures:

Conservationist: _____Date: _____

Applicant: _____ Date: _____